

Ser. No.10/589,167
Amdt. dated May 5, 2008
Reply to Office Action of February 5, 2008

PU040009

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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Previously Presented) An apparatus, comprising a receive chain and a transmitting chain, which receives signal and transmits signal during separate time intervals wherein it further comprises:
 - power amplifying means for amplifying a transmission signal; and
 - control means for controlling said power amplifying means based on a power level estimation of third order intermodulation products associated with said power amplifying means, said intermodulation products being represented by leakage signals going through switch to signal receiving elements during the transmitting mode.
2. (Previously Presented) The apparatus of claim 1, wherein said control means controls a bias current associated with said power amplifying means.
3. (Previously Presented) The apparatus of claim 1, further comprising signal transmitting means for wirelessly transmitting said transmission signal.
4. (Previously Presented) The apparatus of claim 3, further comprising: switching means for providing passage of said transmission signal from said power amplifying means to said signal transmitting means; and wherein a leakage signal associated with said switching means includes said third order intermodulation products.
5. (Previously Presented) The apparatus of claim 1, wherein: said transceiver apparatus includes a transmitting mode and a receiving mode; and said control means comprises digital filtering means for performing digital filtering operations during both said transmitting mode and said receiving mode.
6. (Previously Presented) The apparatus of claim 5, wherein said digital filtering means performs a high pass digital filtering operation during said transmitting mode, and performs a low pass digital filtering operation during said receiving mode.

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7. (Previously Presented) The apparatus of claim 1, wherein said control means controls said power amplifying means only if a transmitting power level of said transceiver apparatus exceeds a predetermined threshold level.
8. (Previously Presented) The apparatus of claim 7, wherein the bias current is maintained at its current level only said transmitting power level of said transceiver apparatus does not exceed said predetermined threshold level.
9. (Currently Amended) A method for controlling a transceiver apparatus, comprising:
detecting a power level of third order intermodulation products associated with a power amplifier of said transceiver apparatus; and controlling said power amplifier responsive to said detection;
wherein said detecting is performed during transmission by the transceiver; and
wherein intermodulation products are represented by leakage signals going through a switch to signal receiving elements during said transmission.
10. (Previously Presented) The method of claim 9, wherein said controlling step includes controlling a bias current associated with said power amplifier.
11. (Previously Presented) The method of claim 9, wherein the bias current is reduced if an accumulator level is lower than a reference level and in that the bias current is increased if said accumulator level is higher than said reference level, said accumulator level being an estimate of power level of third order intermodulation products.
12. (Previously Presented) The method of the bias current is modified only if a transmitting power level of said transceiver apparatus exceeds a predetermined threshold level.
13. (Previously Presented) The method of claim 9 wherein that the bias current is maintained at its current level only if said transmitting power level of said transceiver apparatus does not exceed said predetermined threshold level.
14. (Previously Presented) The method claim 9, further comprised of: using said power amplifier to amplify a transmission signal; and using a switch to provide passage of said transmission signal from said power amplifier to a signal transmitting element.
15. (Previously Presented) The method of claim 9, further comprised of using said

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signal transmitting element to wirelessly transmit said transmission signal.

16. (Previously Presented) The method of claim 14, wherein a leakage signal associated with said switch includes said third order intermodulation products.

17. (Previously Presented) The method of claim 9, wherein said detecting and controlling steps are performed if a transmitting power level of said transceiver apparatus exceeds a predetermined threshold level.

18. (Previously Presented) The apparatus of claim 1, wherein control means are set up using a single component such as a controller.

19. (Previously Presented) The apparatus of claim 1, wherein switching means are set up using a single component such as a switch.